



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,187	11/21/2006	Osamu Ito	283696US6PCT	8032
22850	7590	04/28/2010	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			SU, SARAH	
			ART UNIT	PAPER NUMBER
			2431	
			NOTIFICATION DATE	DELIVERY MODE
			04/28/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/564,187	<b>Applicant(s)</b> ITO ET AL.	
	<b>Examiner</b> Sarah Su	<b>Art Unit</b> 2431	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-50 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

- a. Group 1, claim(s) 1, 17-34, 36-39, 43-49, drawn to a wireless communication apparatus for communicating transmission data made up of a physical layer header section and a data section.
- b. Group 2, claim(s) 2 and 35, drawn to a wireless communication apparatus for communication transmission data made up of a non-scrambled section and a scrambled section.
- c. Group 3, claim(s) 3, drawn to a communication system made up of a transmission and reception device for setting data in the physical layer header.
- d. Group 4, claim(s) 4-9 and 11-14, drawn to a device for transmitting/receiving a signal to be processed and output according to an internal state.
- e. Group 5, claim(s) 10 and 15, drawn to a device for controlling a sector for outputting an initial-value register or a calculator.

Art Unit: 2431

f. Group 6, claim(s) 16, drawn to a reception device for controlling the output of multiple descramblers.

g. Group 7, claim(s) 40-42 and 50, drawn to a wireless communication apparatus for performing division multiplexing communication.

2. The groups of inventions listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

When the inventions of the wireless communication system of Group 1 and the wireless communication system of Group 2 are compared to one another, the technical feature common to them relates to a wireless communication system in which the transmission side generates a scramble initial value, performs scramble processing with the scramble initial value, and transmits the initial value together with the transmission data while the reception side generates a descramble initial value according to the initial value received together with the transmission data and performs descramble processing with the descramble initial value. This common technical feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the wireless communication system of Group 1 and the communication system of Group 3 are compared to each other, the technical feature common to them relates to a communication system in which the transmission side generates a calculation initial value, performs calculation with the calculation initial

Art Unit: 2431

value, and transmits the initial value together with the transmission data while the reception side generates a calculation initial value according to the initial value received together with the transmission data and performs calculation with the calculation initial value. This common technical feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the wireless communication system of Group 1 and the transmission/reception device of Group 4 are compared to one another, the technical feature common to them relates to generating a calculation initial value, performing calculation with the calculation initial value, and outputting the initial value together with the transmission data. This common technical feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the wireless communication system of Group 1 and the transmission/reception device of Group 5 are compared to one another, the technical feature common to them relates to generating a calculation initial value according to an initial value received together with the transmission data and performing calculation with the calculation initial value. This common technical feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the wireless communication system of Group 1 and the reception device of Group 6 are compared to each other, the technical feature common

Art Unit: 2431

to them relates to performing descrambling processing at the reception side. This common technical feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the wireless communication system of Group 1 and the wireless communication apparatus of Group 7 are compared to each other, the technical feature common to them relates to transmission of the physical header. This common technical feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the wireless communication system of Group 2 and the communication system of Group 3 are compared to each other, the technical feature common to them relates to a communication system in which the transmission side generates a calculation initial value, performs calculation with the calculation initial value, and transmits the initial value together with the transmission data while the reception side generates a calculation initial value according to the initial value received together with the transmission data and performs calculation with the calculation initial value. This common technical feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the wireless communication system of Group 2 and the transmission/reception device of Group 4 are compared to one another, the technical feature common to them relates to generating a calculation initial value, performing

Art Unit: 2431

calculation with the calculation initial value, and outputting the initial value together with the transmission data. This common technical feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the wireless communication system of Group 2 and the transmission/reception device of Group 5 are compared to one another, the technical feature common to them relates to generating a calculation initial value according to an initial value received together with the transmission data and performing calculation with the calculation initial value. This common technical feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the wireless communication system of Group 2 and the reception device of Group 6 are compared to each other, the technical feature common to them relates to performing descrambling processing at the reception side. This common technical feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the wireless communication system of Group 2 and the wireless communication apparatus of Group 7 are compared to each other, there is no technical feature common to them. Therefore, there cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the communication system of Group 3 and the transmission/reception device of Group 4 are compared to one another, the technical feature common to them relates to generating a calculation initial value, performing calculation with the calculation initial value, and outputting the initial value together with the transmission data. This common technical feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the communication system of Group 3 and the transmission/reception device of Group 5 are compared to one another, the technical feature common to them relates to generating a calculation initial value according to an initial value received together with the transmission data and performing calculation with the calculation initial value. This common technical feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the communication system of Group 3 and the reception device of Group 6 are compared to each other, the technical feature common to them relates to performing descrambling processing at the reception side. This common technical feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the communication system of Group 3 and the wireless communication apparatus of Group 7 are compared to each other, the technical feature common to them relates to transmission of the physical header. This common technical



Art Unit: 2431

feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the transmission/reception device of Group 4 and the transmission/reception device of Group 5 are compared to one another, the technical feature common to them relates to generating a calculation initial value according to an initial value received together with the transmission data and performing calculation with the calculation initial value. This common technical feature makes no contribution over the prior art and cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the transmission/reception device of Group 4 and the reception device of Group 6 are compared to each other, there is no technical feature common to them. Therefore, there cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the transmission/reception device of Group 4 and the wireless communication apparatus of Group 7 are compared to each other, there is no technical feature common to them. Therefore, there cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the transmission/reception device of Group 5 and the reception device of Group 6 are compared to each other, there is no technical feature

Art Unit: 2431

common to them. Therefore, there cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the transmission/reception device of Group 5 and the wireless communication apparatus of Group 7 are compared to each other, there is no technical feature common to them. Therefore, there cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

When the inventions of the reception device of Group 6 and the wireless communication apparatus of Group 7 are compared to each other, there is no technical feature common to them. Therefore, there cannot be a special technical feature within the meaning of PCT Rule 13.2, second sentence.

Accordingly, there is no technical feature common to claims 1-50. Since there exists no other common feature which can be considered as a special technical feature within the meaning of PCT Rule 13.2, no technical relationship within the meaning of PCT Rule 13 between the different inventions can be seen.

3. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention or species.

Should applicant traverse on the ground that the inventions have unity of invention (37 CFR 1.475(a)), applicant must provide reasons in support thereof. Applicant may submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. Where such evidence or admission is provided by applicant, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Art Unit: 2431

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah Su whose telephone number is (571) 270-3835. The examiner can normally be reached on Monday through Friday 7:30AM-5:00PM EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William R. Korzuch/  
Supervisory Patent Examiner, Art Unit 2431

/Sarah Su/  
Examiner, Art Unit 2431